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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,187	06/09/2005	Mariano Collura	1381 US/PCT	3253
7590 Robert S. Klemz, Jr. Vesuvius USA 27 Noblestown Road Carnegie, PA 15106-1632		10/03/2007	EXAMINER CHEN, CHRISTINE	
			ART UNIT	PAPER NUMBER 1709
			MAIL DATE 10/03/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/538,187	COLLURA ET AL.
Examiner	Art Unit	
Christine Chen	1709	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 09 June 2005.
2a) This action is **FINAL**. 2b) This action is non-final.
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 10-18 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 10-18 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 09 June 2005 is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 09 June 2005.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
5) Notice of Informal Patent Application
6) Other: ____.

DETAILED ACTION

Status of Application

Claims 10-18 are pending and presented for examination.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) was submitted on 6/9/2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

In particular, WO-A1-9920420, EP-A1-192,019 and EP-B1-441,927 were not listed on the submitted IDS.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the chamfer mentioned in claims 11 and 12 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The disclosure is objected to because of the following informalities: On page 4, li. 22, "(11)" follows the phrase "collector nozzle". This is misleading and ought to be deleted, as it is the orifice which corresponds to "(11)" on the drawings.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Both claims concern the location of a chamfer, of which is unclear. Drawings in which this feature is more apparent would be helpful. This being the case, the drawings are objected to, as seen earlier on page 3.

In the instant claim, the phrases "chamfer at the end of the tip" and "chamfer on the side opposite to the end of the tip" are unclear.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Jeschke (US 4,179,046). This is discussed further after a discussion of the language of intended use.

Claim 10 is drawn to a refractory plate, an apparatus.

Much of the language in the instant claim is that of suggested use. Intended use phrases are bolded below.

Claim 10. Refractory plate for a device for the insertion and/or removal of a nozzle for a casting installation combined with a sliding plate flow-control device comprising

- a) a first surface provided with an orifice defining the entry of a casting channel through the plate and able to form a sealing surface, at least around the orifice, with a face matching the face of a sliding plate of the flow-control device;**
- b) a second surface adapted to rest in housing of the device and provided with a plane protuberance circumscribing the casting channel and extending through the bottom wall of the housing, and**
- c) a tip-shaped third surface defined by the plane surface of the protuberance provided with an orifice defining the exit of the casting channel through the plate, the surface being adapted (i) to form a sealing surface, at least around the orifice, with a matching face of a refractory nozzle in casting position, and (ii) to act as guiding surface for the refractory nozzle from an introduction position to a casting position, the tip being directed towards the introduction position of the refractory nozzle.**

While the claim is considered in its entirety, words of intended use that do not pose as a functional limitation to the apparatus are not given any patentable weight.

In regards to anticipation, Jeschke (US 4,179,046) teaches a refractory plate (Figure 1) which overlaps claim 10. Jeschke's (US 4,179,046) refractory plate (Figure 1) comprises

- a) a first surface provided with an orifice defining the entry of a casting channel through the plate;
- b) a second surface adapted to rest in housing of the device and provided with a plane protuberance circumscribing the casting channel and extending through the bottom wall of the housing, and
- c) a tip-shaped third surface defined by the plane surface of the protuberance provided with an orifice defining the exit of the casting channel through the plate.

Therefore the instant claim is not novel.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeschke (US 4,179,046).

Jeschke's invention (US 4,179,046) was mentioned earlier in a 102 rejection for claim 10. It anticipates the refractory plate described in claim 10.

Claims 13-15 further describe the shape of the third surface. Claim 13 describes the third surface as being oval-shaped. Claim 14 describes the third surface as being triangle shaped. Claim 15 describes the third surface as being egg-shaped.

The shape of the third surface of the refractory plate in Jeschke's invention (US 4,179,046) appears to be either oval-shaped or circle-shaped (Figure 1). The exact shape is uncertain. However, it would have been obvious to one of ordinary skill in the art to modify the shape of the third surface of the refractory plate, whether it be oval-shaped, triangle shaped, or egg-shaped, based on the user's preference and demand in the routine practice of industry. One would have been motivated to make this modification to allow for various refractory plate shapes to be made in order to increase the selection available to consumers and to improve industrial applicability.

Art Unit: 1709

3. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jeschke (US 4,179,046) as applied to claim 10 above, and in view of Kawamura (US 5,958,279).

Jeschke's invention (US 4,179,046) was mentioned earlier in a 103 rejection for claim 10. Jeschke's invention (US 4,179,046) anticipates the refractory plate described in claim 10.

However, Claims 16 and 17 further enhance the refractory plate as described in claim 10 with inert gas supplying means.

Claim 16 is drawn to a refractory plate with inert gas supplying means. Claim 17 further limits claim 16, "wherein the inert gas supplying means comprises a gas feeding line and a circular groove circumscribing the exit orifice of the casting channel in the third surface."

While Jeschke (US 4,179,046) fails to disclose an inert gas supplying means to the refractory plate described in claim 10, Kawamura (US 5,958,279) teaches a refractory slide-gate plate with an inert gas supplying means (Figure 2), where "the inert gas blowing hold **16** is intercommunicated with the groove portion **14** at the one end thereof, and communicated with a gas blowing tube **17** (col. 4, li. 23-25)." The gas feeding line and circular groove circumscribing the exit orifice can be seen in Figure 2.

Taking this into consideration, in addition to knowledge of prior art, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add an inert gas supplying means comprising "a gas feeding line and a circular groove circumscribing the exit orifice of the casting channel in the third surface" to the refractory

plate described in claim 10. One would have been motivated to make this modification in order to protect the metal stream exiting the orifice on the third surface from the ambient atmosphere.

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jeschke (US 4,179,046) as applied to claim 10 above, and in view of Fricker (US 5,074,442).

Jeschke's invention (US 4,179,046) was mentioned earlier in a 103 rejection for claim 10. Jeschke's invention (US 4,179,046) anticipates the refractory plate described in claim 10.

However, Claim 18 further includes a second orifice located close to the end of the tip of the third surface of the refractory plate described in claim 10.

While Jeschke (US 4,179,046) fails to disclose a second orifice in his invention, Fricker (US 5,074,442), in describing (Figure 4) one of the embodiments of his invention, a refractory plate unit, states "the refractory plate has therethrough two discharge openings **24, 45** (col. 5, li. 10-11)." Therefore it is not novel to add a second orifice.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a second orifice located close to the end of the tip of the third surface on the refractory plate described in claim 10. One would be motivated to include a second opening close to the end of the tip on the third surface to aid in the insertion of a lancing device when necessary.

Conclusion

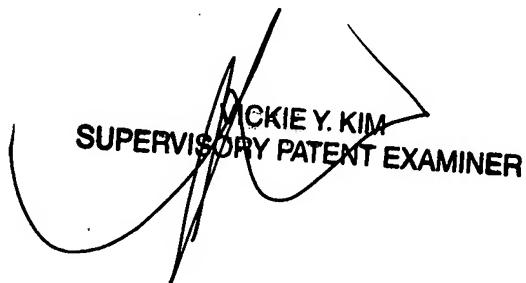
No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Chen whose telephone number is 571-270-3590. The examiner can normally be reached on Monday-Friday 8:30am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vickie Kim can be reached on (571) 272-0579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CC


VICKIE Y. KIM
SUPERVISORY PATENT EXAMINER